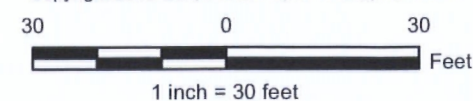




**EXPLANATION**

- |                  |                      |
|------------------|----------------------|
| Building Outline | Press Pit            |
| Site Boundary    | Unidentified Feature |
| Former Press     | Surveyed Feature     |
|                  | Fence                |

Map Projection:  
 State Plane Feet, Colorado Central Zone, NAD83.  
 Aerial Photo Basemap Source:  
 Google Earth, 10/6/2013 and  
 Copyright 2013 Esri, DeLorme, NAVTEQ, TomTom.

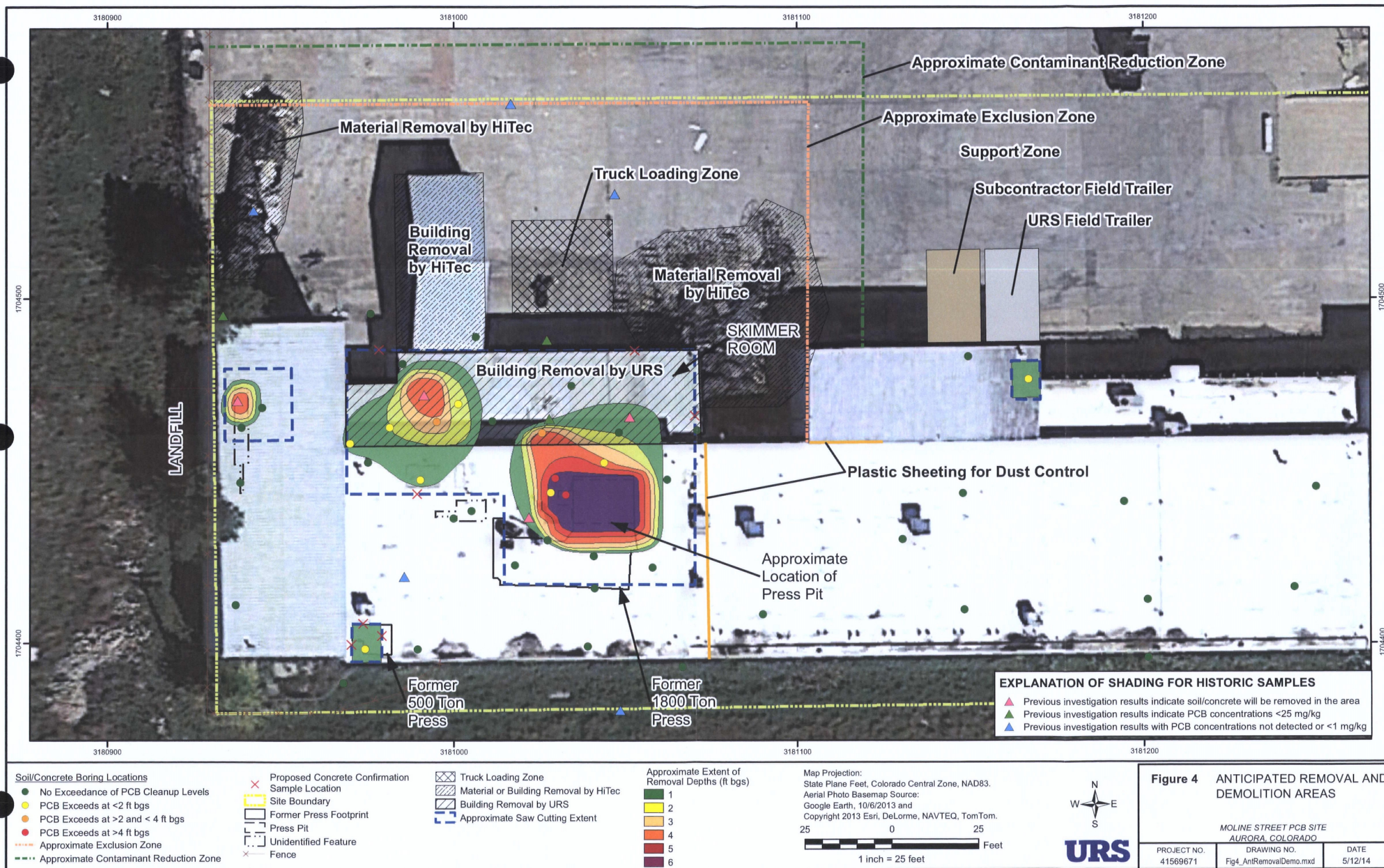


**Figure 3 BUILDING IDENTIFICATION AND SQUARE FOOTAGE**

MOLINE STREET PCB SITE  
 AURORA, COLORADO

PROJECT NO. 41569671	DRAWING NO. Fig3_Bldg_Info.mxd	DATE 5/9/14
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*Appendix A – Stage I Summary Technical Memorandum  
is provided on CD only*





**TO:** Joyel Dhieux, On-Scene Coordinator for EPA - Region VIII

**FROM:** URS Corporation

**CC:** Tom Gieck, Remediation Leader, TDCC Representative  
Louis Hard, HiTec Plastics, Inc.

**DATE:** May 1, 2014

**SUBJECT:** Summary of Stage I Field Activities and Investigation Results  
*Moline Street PCB Site - 3555 Moline Street, Aurora, Adams County, Colorado*

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URS Corporation (URS) prepared this technical memorandum on behalf of The Dow Chemical Company (TDCC) to present Stage I field activity results for the Moline Street PCB Site located 3555 Moline Street, Aurora, Colorado (Site). This technical memorandum describes the potential approach and path forward for the polychlorinated biphenyls (PCBs) removal action, and is presented in the following sections:

1. Site Background
2. Summary of Stage I Field Activities
3. Wipe Sample Results
4. Soil and Concrete Results and Data Evaluation
5. Potential Removal Action Approach
6. Attachments
7. References

TDCC and URS held a meeting on April 9, 2014 with EPA, HiTec Plastics, Inc. (HiTec), and LT Environmental, Inc. (LTE) to discuss the Stage I investigation preliminary findings, as presented in draft tables and figures. This technical memorandum presents final Stage I investigation results and further details the findings and conclusions, which will be used to determine the PCB removal action scope. URS made minor updates to tables and figures following the April 9<sup>th</sup> meeting; therefore, the results and attachments contained within this technical memorandum supersede those presented at the meeting.

## **1.0 SITE BACKGROUND**

This Section briefly summarizes the physical conditions, investigative history, and contaminant characteristics of the Site. Greater detail is provided in the *Revised Draft Investigation and Removal Action Work Plan* (Revised Work Plan) that URS submitted on February 28, 2014 (URS 2014). The Site is located in Aurora, Colorado near the southwest corner of the intersection of Smith Road and Moline Street (Figure 1). The Site covers approximately 1.8



acres and includes a building with an address of 3555 Moline Street, as shown in Figure 2. The surrounding properties include commercial and light industrial uses. The building north of the Site has an address of 11380 East Smith Road and is currently owned and occupied by HiTec, which operates a plastics recycling operation. HiTec also purchased the Site building (3555 Moline Street) on February 14, 2014, which has been vacant since 2009.

TDCC constructed the Site building in 1969 and used it for magnesium extrusion operations until 1999 when Timminco Corporation assumed the lease and purchased the operating assets, and Timminco continued operations until they transferred their operations to Mexico in August 2009. Several chemicals were historically used to operate and clean the presses used for magnesium extrusion, including hydraulic oils and solvents. PCBs were present within hydraulic oils until 1979 when the United States government banned their manufacturing, processing, distribution, and use. At least two presses were operated (a 500-ton press and an 1800-ton press), and at least one pit was used for wastes from the press(es).

The investigative and regulatory history is detailed in the Revised Work Plan (URS 2014), and summarized as follows:

- Several environmental consultants conducted a number of Phase I and Phase II investigations at the Site between 1999 and 2013.
- Based on findings from a Phase II that LTE conducted in March 2013 (LTE 2013), EPA contacted TDCC in mid-2013 regarding the Site and a site visit was held on August 14, 2013 between EPA, TDCC, HiTec, URS, and LTE.
- EPA, TDCC, HiTec, and URS participated in multiple conference calls and meetings between August 2013 and October 2013 to scope the PCB removal action.
- URS submitted the *Draft Investigation and Removal Action Work Plan* to EPA on October 28, 2013 (URS 2013), after which negotiations took place between EPA, Hi Tec, and TDCC in preparation of The Administrative Settlement Agreement and Order on Consent (Settlement Agreement), which was executed by EPA on January 30, 2014.
- EPA gave URS verbal approval on February 13, 2014 to commence Stage I investigation activities and URS submitted the Revised Work Plan on February 28, 2014 (URS 2014), which EPA approved on March 24, 2014.

The Revised Work Plan addresses the work outlined for TDCC in the Settlement Agreement, specifically to address PCBs in soil. The removal action objective specified achieving clean up levels of 25 parts per million (ppm) within the top foot of soil and/or concrete, and a cleanup level of 100 ppm in soil deeper than 1 foot. The Revised Work Plan specified conducting the work in two stages as follows:

- Stage I includes additional Site investigation activities to better understand the nature and extent of contamination, which will assist in planning the removal action.
- Stage II includes demolition, excavation, backfilling, and restoration activities.



This technical memorandum summarizes Stage I field activities and results. It also describes the proposed removal action approach and path forward. A Stage II Work Plan will be prepared prior to commencing removal activities, as discussed in Section 5.

## **2.0 SUMMARY OF STAGE I FIELD ACTIVITIES**

This section summarizes Stage I field activities, which included locating utilities, conducting an asbestos building inspection, wipe sampling, drilling and soil sampling, and surveying. Upon EPA's approval to proceed, URS began subcontractor procurement and preparation activities, including notifying the Utility Notification Center of Colorado (UNCC) on February 20, 2014. Another utility location ticket was opened on March 12, 2014 in the event of delayed drilling activities.

### **2.1 Asbestos Building Inspection**

URS contracted Herron Enterprises USA, Inc. (Herron) to perform the asbestos building inspection, which Herron conducted on February 24, 2014. Samples for asbestos analysis were collected from the Site building and the building was evaluated by Herron's Colorado Certified Asbestos Building Inspector (CABI). Herron conducted a standard building asbestos inspection in Buildings A, B, C, and F, as they may be considered for demolition (building lettering is included on Figure 3) and a limited asbestos evaluation of the floor only in Buildings D, E, G, H, and I, as they are not considered for demolition, but were subject to disturbance during drilling and excavation activities. Results indicated that asbestos containing material (ACM) was not present within inspected areas, with the exception of the mastic used for the floor tile in Building G. Therefore, no investigation borings were located in Building G. Herron's asbestos building inspection report is included as Attachment A.

### **2.2 Wipe Sampling**

Concurrent with the asbestos building inspection, URS collected wipe samples for PCB analysis from the ceiling, walls, and floors of Buildings B through I, as shown in Figure 3. URS collected wipe samples from areas having the greatest visible staining and/or dust to conservatively evaluate the possible PCB concentrations. URS collected a total of 32 wipe samples (including quality control samples), 27 of which URS analyzed using a Dexsil field lab kit for PCB 1242, as shown in Table 1 and discussed in Section 3. URS submitted five wipe samples to TestAmerica, an analytical laboratory in Arvada, Colorado, as confirmation samples for laboratory analysis of nine aroclors, as shown in Table 2 and discussed in Section 3. Preliminary PCB results from wipe samples indicated that investigation work could proceed without upgrading to Occupational Safety and Health Administration (OSHA) Level C Personal Protective Equipment (PPE) for the field crew, as long as dust levels were properly managed per the Health and Safety Plan (HASP) included in the Revised Work Plan (URS 2014). During wipe sampling, URS also collected two solid samples of material from two small surficial piles of dust/dirt inside Building C to evaluate



the presence of PCBs in surficial material and dust in the building, as shown in Table 3 and discussed in Section 3.

## **2.3 Drilling and Subsurface Characterization**

Diversified Underground, Inc. conducted a private utility locate on March 14, 2014. URS contracted Alpine Remediation, Inc. (Alpine) to perform concrete coring and direct push technology (DPT) drilling services, which began on March 17, 2014. The DPT rig was equipped with standard 2-inch diameter, 5-foot long, continuous stainless steel samplers with clear plastic liners. URS logged retrieved soil cores for lithologic conditions, color, staining and/or odor, moisture content, other pertinent features, and field screened the samples using a calibrated photoionization detector (PID) to detect total volatile organic vapors. Soil cores were classified via the Unified Soil Classification System (USCS) and documented on soil boring logs, as included in Attachment B. Attachment C includes select photographs from the Stage I activities.

URS conducted drilling and sampling activities between March 17 and 20, 2014 to retrieve soil cores from 52 investigation locations, as shown in Table 4 and on Figure 4. The URS field manager identified the investigation locations with concurrence from the URS project manager and the EPA On-Scene Coordinator. Investigation locations were selected to penetrate through heavily stained areas and/or cracks and seams, assuming these locations were the most likely points of potential release to subsurface soils. URS originally proposed 37 investigation locations in the Revised Work Plan; however, URS added investigation locations based on field observations of surface conditions, subsurface conditions, and/or field screening results.

The 52 investigation locations included:

- Four (4) grab sample locations (e.g., shallow samples retrieved using hand tools) outside and adjacent to the southern wall of the building;
- Two (2) drilled locations outside and north of the building; and
- Forty-six (46) locations drilled inside of the building.

Ventilation management measures (i.e., a series of fans and exhaust tubing) were put in place during indoor drilling to control exhaust from the drill rig. Soil samples were collected from each of the 52 investigation locations, except for SB-19 where the starbit became stuck in the concrete and could not be removed. Soil screening samples were analyzed with the field lab kit for PCB-1242, as presented in Table 5 and discussed in Section 4. A portion of the soil samples analyzed by the field lab kit (approximately 20 percent) were submitted as confirmation samples to TestAmerica for laboratory analysis of the 9 aroclors, as shown in Table 6 and discussed in Section 4.

Of the 46 indoor investigation locations, the concrete was too thick to core through at 6 locations, having a thickness greater than 1-foot, and a starbit drilling technique was used to penetrate through the concrete. At these 6 locations, the concrete thicknesses varied from 2.5 to



5 feet thick. Alpine successfully cored through the concrete slab at the remaining 40 indoor locations and boreholes were subsequently advanced via DPT drilling, with the exception of one location (SB-51) where a hand auger was used due to restricted drill rig access (low ceiling height). Alpine wetted the concrete during coring and starbit drilling with treated water to mitigate dust generation; however, ventilation measures and respirators were used as additional controls and workers protection. The concrete thickness was measured at cored locations and typically ranged between 5 to 8 inches thick, as illustrated on Figure 5. Stained portions of 40 of the concrete cores were submitted to TestAmerica for laboratory analysis of the 9 aroclors, as shown in Table 7.

Of the 47 drilled locations (52 less the 4 grab samples and one hand auger sample), 40 were advanced to 5 feet below ground surface (bgs), or the top of the concrete slab, and 7 were advanced to 10 feet bgs (i.e., SB-25, -31, -45, -46, -47, -50, and -52). Boreholes were abandoned with wetted bentonite chips and patched with concrete. Investigation locations and other Site features (i.e., building corners and estimated pit and press concrete footprints) were surveyed on March 25 and 26, 2014, marking completion of Stage I field activities. URS received the laboratory results from TestAmerica on April 3, 2014.

### **3.0 WIPE SAMPLE RESULTS**

Tables 1 and 2 present the wipe sample results from the field test kits and TestAmerica, respectively, with sample locations shown on Figure 3. In addition to having undergone a quality control review at TestAmerica, a URS chemist conducted an independent quality control review of the analytical results for the five confirmation samples. The forms documenting this review, the laboratory reports, and the qualified data sheets are included in Attachment D.

#### **3.1 Surface Wipe Results**

In general, the field test kit results are significantly higher than laboratory analytical results. The field test kit results ranged from 9.65 to 2,406 micrograms per square decimeter ( $\mu\text{g}/100\text{ cm}^2$ ), with an average concentration of approximately  $649\text{ }\mu\text{g}/100\text{ cm}^2$ . Conversely, the analytical laboratory results ranged from 0.38 to  $57\text{ }\mu\text{g}/100\text{ cm}^2$ , with an average concentration of approximately  $15\text{ }\mu\text{g}/100\text{ cm}^2$ . The field test kits detected any organic chloride present on the wipe sample and then calculated the concentration of PCB-1242 by dividing the chloride concentration by 42 percent. This approach assumes that 100 percent of the organic chloride present is attributed to PCB-1242 and is likely the reason for the poor correlation observed between analytical results and field results (Table 2).

EPA guidance (EPA, 1990) specifies that industrial indoor surfaces must be cleaned to total PCB concentrations of  $10\text{ }\mu\text{g}/100\text{ cm}^2$  or to  $100\text{ }\mu\text{g}/100\text{ cm}^2$  with encapsulation, as confirmed by post-cleanup wipe sampling. The field test kit PCB results from this Stage I investigation indicate that nearly the entire building would need to be cleaned; however, these data are likely biased



high due to the presence of organic chloride unrelated to PCBs. Analytical results from 2 of the 5 confirmation wipe samples (from the ceiling in Building D and the wall in Building H) exceeded the  $10 \mu\text{g}/100 \text{ cm}^2$  threshold, whereas results from the other 3 samples indicated that action would not be necessary.

Due to the variability between the field test kit and fixed laboratory analytical results, TDCC cannot confidently delineate the portions of the building that require cleaning. Furthermore, sample results likely overestimate concentrations representative of their respective building portions as samples were selectively taken from surfaces with the greatest visible staining and dust. Although there is some uncertainty due to inconsistency between field test kit and laboratory results, it can be reasonably concluded from the data that portions of the building will need to be cleaned before the removal action is complete. Additional wipe sampling will be conducted following completion of excavation and restoration activities. Future wipe samples will be submitted for fixed laboratory analysis only and will not be analyzed with the field test kit because of the assumed measurement interference with other sources of organic chloride.

### **3.2 Surficial Material Sample Results**

During the wipe sampling, surficial material on the floor comprised primarily of dust, dirt, and small debris was collected from two locations in Building C and submitted for laboratory analysis, as presented on Table 3. Surficial material collected from a small pile located near the entry to Building D had minor detections of PCBs below the surficial action level of 25 ppm. Surficial material collected in the southwest region of Building C in the vicinity of the former compressors was oily and likely contained other chemicals (e.g., petroleum hydrocarbons) resulting in matrix interference. The interference necessitated greater dilutions during sample analysis, resulting in higher reporting limits for this sample. Nevertheless, total PCBs were not detected above 25 ppm in this material.

## **4.0 SOIL AND CONCRETE RESULTS AND DATA EVALUATION**

Most boreholes were advanced to 5 feet bgs with several boreholes extending to 10 feet bgs. In general, the upper 5 to 6 feet of soil was classified as relatively plastic silts and clays, which were underlain by sands with little fine-grained material. Gray to black staining was observed in 23 borings, with varying heavy-range hydrocarbon odors observed in a portion of these. Because this investigation was limited to relatively shallow soils, saturated soil conditions were not encountered. Attachment B includes boring logs and Attachment C includes photographs of retrieved soil cores.

URS collected soil samples from each of the 52 investigation locations (except SB-19), which the field geologist/engineer selected based on field observations of surface conditions, subsurface conditions, and/or field screening results (Table 4 and Figure 4). URS made 87 soil measurements and 7 concrete dust measurements using the field test kit (Table 5). A total of 20



soil samples and 40 concrete samples were submitted for laboratory analysis of the 9 aroclors (Tables 6 and 7, respectively). A URS chemist conducted an independent quality control review of the soil and concrete analytical data. The data validation report associated with this review, the laboratory reports, and the qualified data sheets are included in Attachment D. A majority of the results for soil samples were flagged due to considerable laboratory dilutions required because of high analyte concentrations and/or matrix interferences.

#### **4.1 Soil Results**

The soil results are summarized as follows:

- Field test kit results for the 87 soil samples ranged from 1.5 to 3,563 ppm, with a median soil concentration of approximately 5.8 ppm (Table 5).
- Of the 20 soil confirmation samples, four detected PCBs with concentrations ranging from 1.4 to 7,900 mg/kg, two of which exceeded respective cleanup levels (Table 6).
- Of the sixteen (16) soil confirmation samples that did not detect PCBs, detection limits for total PCBs ranged from 0.003 to 2,900 milligrams per kilogram (mg/kg) or ppm, with a median detection limit of 35 mg/kg (Table 6). Detection limits for the 6 samples without detections are above the respective cleanup levels of 25 ppm (0 to 1 foot bgs) and 100 ppm (below 1 foot bgs) and are identified as potential exceedances. For planning purposes, potential exceedances are treated as true exceedances in delineating the removal area, as discussed in Section 5.

In general, there is variability between field test kit and analytical results, with the field test kit results biased low in some samples, matching analytical results well in some, and being biased high in other samples. Although there is not a strong correlation between the field test kit and laboratory results, there is agreement for each of the 20 soil samples between whether the material exceeds a cleanup level (with the exception of sample of the surficial material at SB 31). Therefore, the field test kit results can be reasonably used as a qualitative screening method (i.e., PCB presence and concentration order of magnitude) for delineating the presence of PCBs and estimating exceedance areas.

Field test kit and analytical results were compared against the cleanup levels of 25 ppm in the upper foot and 100 ppm below 1 foot bgs to identify exceedance areas, as shown on Figure 4. Eight investigation locations were identified to have PCB soil contamination above cleanup levels (assuming that SB-19 would have elevated soil concentrations given its elevated concrete concentrations) in portions of Buildings C, D, and F. The remaining 44 sample locations did not contain PCB concentrations above cleanup levels, indicating that soil beneath Buildings A, B, E, H, and I, as well as outside of the warehouse, meets cleanup levels and would not need to be addressed during the removal action (Figure 4). Section 5.0 discusses delineated areas for soil removal.

## 4.2 Concrete Results

The concrete results are summarized as follows:

- Field test kit results for the 7 concrete dust samples ranged from 1.88 to 1,162 ppm, with a median concentration of approximately 10.5 ppm (Table 5).
- Each of the 40 concrete samples submitted for laboratory analysis detected total PCBs, with concentrations ranging from 0.067 to 3,900 mg/kg and a median concentration of 1.55 mg/kg (Table 7).
- Eight (8) concrete samples exceeded the cleanup level of 25 ppm (assuming SB-19 is included based on its field test kit result) in portions of Buildings C and D, as shown on Figure 5.

Overall, concrete in Buildings A, B, E, F, H, and I did not exceed the cleanup level for total PCBs and thus should not need to be addressed during the removal action. Section 5.0 discusses delineated areas for concrete removal.

## 5.0 POTENTIAL REMOVAL ACTION APPROACH

Stage I results were used in conjunction with historical results (presented on Figure 6) to evaluate soil and concrete contamination. Figure 7 presents results for locations that had one or more PCB action level exceedance and indicates the estimated depth interval of contamination. URS used this information to delineate the horizontal and vertical extent of soil and concrete contamination, as shown in Figure 8. Areas for concrete sawcutting were identified based on concrete results, the approximate soil removal extent, and ease of earthworking activities, as shown on Figure 8. In areas where analytical or field test kit results were not obtained, the removal area was delineated based on a conceptual understanding of potential releases or sources of contamination.

For example, upon review of historical documents in conjunction with field observations and Stage I results, URS believes that hydraulic oils containing PCBs leaked around the perimeter of the base of the press pit at the joint between the stem wall and pit slab, to a depth of at least 6 feet bgs. Based on historical inspections of the pit, the concrete slab (with a base of 4 feet bgs) is believed to be saturated with oils, and therefore, likely will need to be removed. Upon further review of the historical documents along with the Stage I results, URS believes that the press pit was located approximately 30 feet farther to the east than estimated in the Revised Work Plan (URS 2014).

The Stage II work plan will detail the planned removal action activities and is scheduled for submittal in early May 2014. The following is a preliminary list of Stage II activities:

- HiTec removes Building A (completed April 2014)
- HiTec removes material near Buildings B and C



- URS and their subcontractor (hereafter referred to collectively as URS) hang plastic sheeting between Buildings D and E, and Buildings E and F
- URS removes Building C
- URS sawcuts concrete in delineated areas
- URS excavates contaminated soils and collects confirmation samples
- Upon achieving soil concentrations below cleanup levels along the sidewalls and base of the excavation, URS surveys excavations
- URS backfills and compacts (with compaction testing) excavation areas
- URS places concrete over excavated areas and surveys final grade
- URS cleans designated portions of building
- URS conducts final wipe sampling of building

Presently, URS is finalizing the PCB removal action bid documents for release in early May 2014. Upon receipt of subcontractor bids, URS will select a subcontractor to perform the work. The estimated project schedule is shown in Figure 9 and anticipates that Stage II activities would commence in early July 2014 and conclude by late September 2014.

## **6.0 ATTACHMENTS**

The following attachments are included with this technical memorandum:

- Table 1           Field Test Kit Results for Wipe Samples
- Table 2           Analytical Laboratory Results for Wipe Samples
- Table 3           Analytical Laboratory Results for Solid Surficial Material
- Table 4           Location Information for Stage I Investigation Borings
- Table 5           Field Test Kit Results for Soil Screening Samples
- Table 6           Analytical Laboratory Results for Soil Confirmation Samples
- Table 7           Analytical Laboratory Results for Concrete Samples
- Figure 1          Site Location
- Figure 2          Site Vicinity
- Figure 3          Wipe Sample Locations
- Figure 4          Soil Sample Locations and Exceedances
- Figure 5          Concrete Locations, Exceedances, and Thickness
- Figure 6          PCB Results from Previous Investigations
- Figure 7          Stage I PCB Results in Soil and Concrete – March 2014
- Figure 8          Potential Removal and Demolition Areas
- Figure 9          Project Schedule
- Attachment A    Asbestos Building Inspection Report – 2/24/2014
- Attachment B    Stage I Field Documentation

- Attachment C Photographic Log
- Attachment D Data Validation and Laboratory Reports

## 7.0 REFERENCES

LT Environmental Inc. (LTE). 2013. *Limited Phase II Environmental Site Assessment*. May 14.

URS Corporation (URS). 2013. *Draft Investigation and Removal Action Work Plan, Smith Road and Moline Street Site, Aurora, Colorado*. October 28.

URS. 2014. *Revised Draft Investigation and Removal Action Work Plan, Moline Street PCB Site, Aurora, Colorado*. February 28.

United States Environmental Protection Agency (EPA). 1990. *Guidance on Remedial Actions for Superfund Sites with PCB Contamination*. Document 540/G-90/007. August.



## **TABLES**

table 1  
Field Test Kit Results for Wipe Samples  
*Stage I Investigation, Moline Street PCB Site*

Sample Number	Sample Identification	Collection Height (feet ags)	Field Test Kit PCB 1242 Results ( $\mu\text{g}/100\text{ cm}^2$ )	Field Test Kit Chloride Results ( $\mu\text{g}/100\text{ cm}^2$ )
1	D-C1-15.5	15.5	763	320
2	D-C1-15.5-FD	15.5	2406	1010
3	D-W1-5	5	779	335
4	D-F1-0	0	1115	468
5	B-C1-13.5	13.5	1315	552
6	B-W1-2	2	114	48
7	B-F1-0	0	1998	838
8	C-C1-11	11	374	157
9	C-W1-4	4	1787	750
10	C-F1-0	0	5490	2306
11	C-TANK	2	1145	481
12	E-C1-12.5	12.5	229	96.3
13	E-W1-4	4	78.9	33.1
14	E-F1-0	0	2000	84
15	F-C1-12	12	73.9	31
16	F-W1-3	3	78.3	32.9
17	G-C1-9	9	349	146
18	G-W1-4	4	11.7	4.83
19	G-F1-0	0	59.4	24.9
20	H-C1-12.5	12.5	16.0	6.73
21	H-W1-4	4	42.3	17.7
22	H-F1-0	0	629	264
23	I-C1-16.5	16.5	15.2	6.41
24	I-W1-4	4	9.65	4.05
25	I-F1-0	0	815	342
26	I-F1-0-FD	0	408	171
27	F-F1-0	0	272	114

Notes:

$\mu\text{g}/100\text{ cm}^2$  = micrograms per square centimeter

ags = above ground surface

FD = field duplicate



table 2  
Analytical Laboratory Results for Wipe Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (µg/100 cm <sup>2</sup> )	Field Test Kit PCB 1242 Result (µg/100 cm <sup>2</sup> )
C-WI-4	2/24/2014	PCB-1016	<0.15	1787
		PCB-1221	<0.32	
		PCB-1232	<0.15	
		PCB-1242	<0.27	
		PCB-1248	<0.1	
		PCB-1254	<b>0.42 J</b>	
		PCB-1260	<0.08	
		PCB-1262	<0.34	
		PCB-1268	<0.12	
		<b>Total PCBs</b>	<b>0.42 J</b>	
D-CI-15.5	2/24/2014	PCB-1016	<0.31	763
		PCB-1221	<0.64	
		PCB-1232	<0.31	
		PCB-1242	<0.55	
		PCB-1248	<0.2	
		PCB-1254	<b>13</b>	
		PCB-1260	<0.16	
		PCB-1262	<0.67	
		PCB-1268	<0.24	
		<b>Total PCBs</b>	<b>13</b>	
F-WI-3	2/24/2014	PCB-1016	<0.15 UJ	78.3
		PCB-1221	<0.32 UJ	
		PCB-1232	<0.15 UJ	
		PCB-1242	<0.27 UJ	
		PCB-1248	<0.1 UJ	
		PCB-1254	<b>0.38 J</b>	
		PCB-1260	<0.08 UJ	
		PCB-1262	<0.34 UJ	
		PCB-1268	<0.12 UJ	
		<b>Total PCBs</b>	<b>0.38 J</b>	
H-WI-4	2/24/2014	PCB-1016	<1.5	42.3
		PCB-1221	<3.2	
		PCB-1232	<1.5	
		PCB-1242	<2.7	
		PCB-1248	<1	
		PCB-1254	<b>57</b>	
		PCB-1260	<0.8	
		PCB-1262	<3.4	
		PCB-1268	<1.2	
		<b>Total PCBs</b>	<b>57</b>	

table 2  
Analytical Laboratory Results for Wipe Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results ( $\mu\text{g}/100\text{ cm}^2$ )	Field Test Kit PCB 1242 Result ( $\mu\text{g}/100\text{ cm}^2$ )
I-FI-0	2/24/2014	PCB-1016	<0.15	815
		PCB-1221	<0.32	
		PCB-1232	<0.15	
		PCB-1242	<0.27	
		PCB-1248	<b>5.4</b>	
		PCB-1254	<0.12	
		PCB-1260	<0.08	
		PCB-1262	<0.34	
		PCB-1268	<0.12	
		<b>Total PCBs</b>	<b>5.4</b>	

Notes:

Field laboratory results are generally significantly higher than analytical laboratory results.

It is likely that other sources of organic chlorine may be present in the samples.

**bolded** values denote detections

$\mu\text{g}/100\text{ cm}^2$  = micrograms per square centimeter

PCB = polychlorinated biphenyl

< = analyte was not detected above the specified method detection limit

Validation Flags: J - Estimated, UJ - Estimated Nondetect



table 3  
Analytical Laboratory Results for Solid Surficial Material  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Comment
C-SOIL-LIGHT	2/24/2014	PCB-1016	<0.15	Dust and debris material on floor of Building C near entry way to Building D
		PCB-1221	<0.45	
		PCB-1232	<0.15	
		PCB-1242	<0.26	
		PCB-1248	<b>3.1</b> NJ	
		PCB-1254	<0.16 UJ	
		PCB-1260	<0.076	
		PCB-1262	<0.33	
		PCB-1268	<0.11	
		<b>Total PCBs</b>	<b>3.1</b>	
C-SOIL-DARK	2/24/2014	PCB-1016	<49	Oily dirt material on floor in southwest corner of Building C near former location of compressors
		PCB-1221	<150	
		PCB-1232	<49	
		PCB-1242	<88	
		PCB-1248	<54	
		PCB-1254	<53	
		PCB-1260	<25	
		PCB-1262	<110	
		PCB-1268	<38	
		<b>Total PCBs</b>	<25	

Notes:

**bolded** values denote detections

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

ppm = parts per million

< = analyte was not detected above the specified method detection limit

Validation Flags: NJ - Tentatively Identified, UJ - Estimated Nondetect

table 4  
Location Information for Stage I Investigation Borings  
*Stage I Investigation, Moline Street PCB Site*

Location	Sample Type	State Plane Coordinates		Ground Surface Elevation (feet amsl)	Approximate Concrete Thickness (inches)
		Northing (feet)	Easting (feet)		
SB-01	DPT	1,704,434.51	3,181,347.95	5,296.89	6
SB-02	DPT	1,704,467.11	3,181,307.72	5,296.79	7
SB-03	DPT	1,704,418.53	3,181,304.47	5,296.88	6
SB-04	DPT	1,704,432.69	3,181,293.86	5,296.95	Not Measured
SB-05	DPT	1,704,445.25	3,181,249.51	5,296.91	6
SB-06	DPT	1,704,416.22	3,181,243.29	5,296.91	6" wood plug
SB-07	DPT	1,704,412.66	3,181,201.06	5,296.76	6
SB-08	DPT	1,704,441.00	3,181,194.31	5,296.89	6
SB-09	DPT	1,704,443.44	3,181,147.81	5,296.90	7
SB-10	DPT	1,704,409.67	3,181,148.19	5,296.92	6
SB-11	DPT	1,704,476.63	3,181,166.80	5,296.58	5
SB-12	DPT	1,704,483.18	3,181,149.37	5,296.56	7
SB-13	DPT	1,704,430.08	3,181,130.32	5,296.82	6
SB-14	DPT	1,704,408.41	3,181,089.99	5,296.88	6
SB-15	Starbit	1,704,447.45	3,181,062.19	5,296.88	36
SB-16	DPT	1,704,421.95	3,181,057.83	5,296.90	2.5
SB-17	DPT	1,704,399.15	3,181,039.02	5,296.84	5
SB-18	DPT	1,704,415.93	3,181,041.06	5,296.88	5
SB-19	Starbit	1,704,443.06	3,181,032.59	5,296.82	>54
SB-20	DPT	1,704,429.90	3,181,027.28	5,296.87	6
SB-21	DPT	1,704,425.31	3,181,040.73	5,296.85	6.5
SB-22	DPT	1,704,422.62	3,181,017.75	5,296.86	6
SB-23	Starbit	1,704,438.36	3,181,005.07	5,296.92	36
SB-24	DPT	1,704,436.21	3,180,999.97	5,296.87	12
SB-25	Starbit	1,704,398.26	3,180,989.41	5,296.85	60
SB-26	DPT	1,704,398.34	3,180,974.12	5,296.84	4
SB-27	DPT	1,704,452.43	3,180,974.90	5,296.82	5
SB-28	DPT	1,704,411.13	3,180,936.90	5,296.79	7
SB-29	Starbit	1,704,446.62	3,180,938.30	5,296.70	36
SB-30	Starbit	1,704,462.58	3,180,938.58	5,296.81	36
SB-31	DPT	1,704,457.97	3,180,969.79	5,296.71	3
SB-32	DPT	1,704,462.59	3,180,981.17	5,296.66	5
SB-33	DPT	1,704,461.76	3,181,070.92	5,296.73	4
SB-34	DPT	1,704,495.74	3,180,975.69	5,295.92	3
SB-35	DPT	1,704,498.37	3,181,297.64	5,296.54	4.5
SB-36	Grab	1,704,388.58	3,180,967.85	5,294.70	not applicable - located in southern field
SB-37	Grab	1,704,393.21	3,181,066.67	5,295.49	
SB-38	Grab	1,704,395.91	3,181,201.22	5,296.16	
SB-39	Grab	1,704,396.51	3,181,273.16	5,295.73	
SB-40	DPT	1,704,464.32	3,180,994.91	5,296.70	4

table 4  
Location Information for Stage I Investigation Borings  
*Stage I Investigation, Moline Street PCB Site*

Location	Sample Type	State Plane Coordinates		Ground Surface Elevation (feet amsl)	Approximate Concrete Thickness (inches)
		Northing (feet)	Easting (feet)		
SB-41	DPT	1,704,468.34	3,180,944.56	5,296.77	3.5
SB-42	DPT	1,704,464.45	3,181,011.19	5,296.76	18
SB-43	DPT	1,704,461.03	3,181,025.68	5,296.79	4
SB-44	DPT	1,704,461.13	3,181,048.07	5,296.69	4.5
SB-45	DPT	1,704,443.67	3,181,028.21	5,296.88	8.5
SB-46	DPT	1,704,447.38	3,180,990.21	5,296.86	7
SB-47	DPT	1,704,469.48	3,181,001.29	5,296.68	5
SB-48	DPT	1,704,481.16	3,180,985.04	5,296.36	4
SB-49	DPT	1,704,488.91	3,181,006.35	5,296.20	7
SB-50	DPT	1,704,447.85	3,181,029.53	5,296.86	5
SB-51	Hand Auger	1,704,474.67	3,181,034.27	5,296.60	4
SB-52	DPT	1,704,452.41	3,181,043.78	5,296.83	6.5

Notes:

amsl = above mean sea level

DPT = the sample was retrieved via direct push drilling following slab removal by coring

Grab = the sample was retrieved using hand tools (locations were in southern field)

Hand Auger = the sample was retrieved with a hand auger after coring through the slab

SB = soil boring

Starbit = the concrete was too thick for the coring device, therefore, a starbit was attached to the DPT rig



table 5  
Field Test Kit Results for Soil Screening Samples  
Stage I Investigation, Moline Street PCB Site

Test #	Boring Location	Sample Depth (feet bgs)	Field Test Kit Result PCB 1242 (ppm)	Comment
1	SB-01	1	3.76	
2	SB-02	1	6.09	
3	SB-03	1.5	1.5	
4		<b>4.5</b>	4.63	
5	SB-04	1	4.12	
6	SB-05	1	3.34	
7	SB-06	1.5	2.76	
8	SB-07	1.5	2.44	
9	SB-08	1.5	2.57	
10	SB-09	1.5	4.35	
11	SB-10	1	11.9	
12	SB-11	1.5	25.1	
13		<b>1.5</b>	3.39	field duplicate
14		2.5	3.33	
15	SB-12	1.5	4.45	
16	SB-13	1	4.22	
17	SB-14	1.5	3.17	
18	SB-15	0	21	concrete dust
19		3.5	2.77	
20	SB-16	1.5	21.9	
21	SB-17	1.5	3.68	
22		4.5	2.39	
23	SB-18	1	2.29	
24	SB-19	0	1162	concrete dust
25		0	828	concrete dust, field duplicate
26	SB-20	<b>1.5</b>	3.57	
27	SB-21	1	4.55	
28	SB-22	<b>1</b>	5.88	
29	SB-23	0	10.5	concrete dust
30		<b>3</b>	3.01	
31	SB-24	<b>1.5</b>	3.51	
32	SB-25	0	1.88	concrete dust
33		<b>5.5</b>	3.34	
34		6.5	3.17	
35	SB-26	1.5	6.55	
36		3	4.76	
37		4.5	6.19	
38	SB-27	1.5	1.58	
39	SB-28	1.5	7.32	
40	SB-29	0	3.55	concrete dust
41		3	12.8	

table 5  
Field Test Kit Results for Soil Screening Samples  
*Stage I Investigation, Moline Street PCB Site*

Test #	Boring Location	Sample Depth (feet bgs)	Field Test Kit Result PCB 1242 (ppm)	Comment
42	SB-30	0	5.25	concrete dust
43		3	80.6	
44		4	5.89	
45		4	5.59	field duplicate
46	SB-31	0.5	99	
47		1.5	3.28	
48		4.5	8.36	
49	SB-32	1.5	473	
50		2.5	4.18	
51	SB-33	1.5	5.17	
52	SB-34	1.5	14.6	
53	SB-35	1.5	2.47	
54	SB-36	1	12.1	outside door
55	SB-37	0	5.55	outside pipe
56		1	2.89	outside pipe
57	SB-38	0	5.71	outside hole
58		1	3.22	
59	SB-39	1	4.28	
60	SB-40	1.5	3563	
61		3	3546	
62		4	2017	
63		5	11.1	
64		5	7.11	field duplicate
65	SB-41	1.5	4.91	
66	SB-42	3	7.78	
67	SB-43	3	1899	
68		5	9.27	
69	SB-44	4.5	57.7	
70	SB-45	1.5	13.5	
71		2.5	5.21	
72		3.5	12	
73		4.5	48.5	
74		5.5	3.03	
75		6.25	13	
76	SB-46	1.5	3.07	
77		4.5	3.92	
78	SB-47	2	437	
79		5	15.2	
80		5	44	
81		9	3.64	
82	SB-48	2	8.49	

table 5  
Field Test Kit Results for Soil Screening Samples  
*Stage I Investigation, Moline Street PCB Site*

Test #	Boring Location	Sample Depth (feet bgs)	Field Test Kit Result PCB 1242 (ppm)	Comment
83	SB-49	3.5	Not Measured	Unable to filter, too dense
84		4.5	3.56	
85	SB-50	4	1180	
86		<b>5</b>	524	
87		6	187	
88		6	179	field duplicate
89	SB-51	1	9.1	
90	SB-52	4	15.1	
91		<b>5</b>	12.4	
92		6	16.1	
93		7	16	
94	SB-Background	1	7.87	collected south of building

Notes:

**bolded** sample depths indicate that the soil sample was also submitted for laboratory analysis

Shaded entries indicate that concentrations either exceed 25 ppm in the upper 1 foot of soil or exceed 100 ppm below 1 foot.

bgs = below ground surface

ppm = parts per million

SB = soil boring



**table 6**  
**Analytical Laboratory Results for Soil Confirmation Samples**  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Field Test Kit PCB 1242 Result (ppm)
SB-03-4.5	3/17/2014	PCB-1016	<0.0058	<b>4.63</b>
		PCB-1221	<0.018	
		PCB-1232	<0.0058	
		PCB-1242	<0.01	
		PCB-1248	<0.0064	
		PCB-1254	<0.0063	
		PCB-1260	<0.003	
		PCB-1262	<0.013	
		PCB-1268	<0.0045	
		<b>Total PCBs</b>	<0.003	
SB-11-1.5	3/17/2014	PCB-1016	<6.4	<b>25.1</b>
		PCB-1221	<20	
		PCB-1232	<6.4	
		PCB-1242	<11	
		PCB-1248	<120 UJ	
		PCB-1254	<6.9 UJ	
		PCB-1260	<3.3	
		PCB-1262	<15	
		PCB-1268	<4.9	
		<b>Total PCBs</b>	<120 U	
SB-20-1.5	3/18/2014	PCB-1016	<0.023	<b>3.57</b>
		PCB-1221	<0.069	
		PCB-1232	<0.023	
		PCB-1242	<0.041	
		PCB-1248	<0.37 UJ	
		PCB-1254	<0.025 UJ	
		PCB-1260	<0.012	
		PCB-1262	<0.052	
		PCB-1268	<0.018	
		<b>Total PCBs</b>	<0.37 U	
SB-22-1	3/18/2014	PCB-1016	<0.0057	<b>5.88</b>
		PCB-1221	<0.017	
		PCB-1232	<0.0057	
		PCB-1242	<0.01	
		PCB-1248	<0.047 U	
		PCB-1254	<0.0062	
		PCB-1260	<0.003	
		PCB-1262	<0.013	
		PCB-1268	<0.0044	
		<b>Total PCBs</b>	<0.047 U	

table 6  
Analytical Laboratory Results for Soil Confirmation Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Field Test Kit PCB 1242 Result (ppm)
SB-23-3	3/19/2014	PCB-1016	<0.03	3.01
		PCB-1221	<0.091	
		PCB-1232	<0.03	
		PCB-1242	<0.053	
		PCB-1248	1.4 NJ	
		PCB-1254	<0.032 UJ	
		PCB-1260	<0.016	
		PCB-1262	<0.068	
		PCB-1268	<0.023	
		<b>Total PCBs</b>	<b>1.4</b>	
SB-24-1.5	3/18/2014	PCB-1016	<0.0055	3.51
		PCB-1221	<0.017	
		PCB-1232	<0.0055	
		PCB-1242	<0.0099	
		PCB-1248	<0.12 UJ	
		PCB-1254	<0.006 UJ	
		PCB-1260	<0.0029	
		PCB-1262	<0.013	
		PCB-1268	<0.0043	
		<b>Total PCBs</b>	<0.12 U	
SB-25-5.5	3/19/2014	PCB-1016	<0.0053 UJ	3.34
		PCB-1221	<0.016 UJ	
		PCB-1232	<0.0053 UJ	
		PCB-1242	<0.0095 UJ	
		PCB-1248	<0.13 UJ	
		PCB-1254	<0.0058 UJ	
		PCB-1260	<0.0028 UJ	
		PCB-1262	<0.012 UJ	
		PCB-1268	<0.0041 UJ	
		<b>Total PCBs</b>	<0.13 U	
SB-30-3	3/19/2014	PCB-1016	<2.9	80.6
		PCB-1221	<8.8	
		PCB-1232	<2.9	
		PCB-1242	<5.1	
		PCB-1248	<92 U	
		PCB-1254	<3.1	
		PCB-1260	<1.5	
		PCB-1262	<6.5	
		PCB-1268	<2.2	
		<b>Total PCBs</b>	<92 U	

**table 6**  
**Analytical Laboratory Results for Soil Confirmation Samples**  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Field Test Kit PCB 1242 Result (ppm)
SB-31-0.5	3/18/2014	PCB-1016	<0.051	<b>99</b>
		PCB-1221	<0.16	
		PCB-1232	<0.051	
		PCB-1242	<0.091	
		PCB-1248	<0.056	
		PCB-1254	<b>2.7</b>	
		PCB-1260	<0.027	
		PCB-1262	<0.12	
		PCB-1268	<0.04	
		<b>Total PCBs</b>	<b>2.7</b>	
SB-32-1.5	3/18/2014	PCB-1016	<57	<b>473</b>
		PCB-1221	<170	
		PCB-1232	<57	
		PCB-1242	<100	
		PCB-1248	<2900 UJ	
		PCB-1254	<62 UJ	
		PCB-1260	<30	
		PCB-1262	<130	
		PCB-1268	<44	
		<b>Total PCBs</b>	<2900 U	
SB-40-3	3/18/2014	PCB-1016	<120	<b>3546</b>
		PCB-1221	<370	
		PCB-1232	<120	
		PCB-1242	<210	
		PCB-1248	<b>7900 NJ</b>	
		PCB-1254	<130 UJ	
		PCB-1260	<62	
		PCB-1262	<270	
		PCB-1268	<93	
		<b>Total PCBs</b>	<b>7900</b>	
SB-40-4	3/18/2014	PCB-1016	<53	<b>2017</b>
		PCB-1221	<160	
		PCB-1232	<54	
		PCB-1242	<96	
		PCB-1248	<2700 UJ	
		PCB-1254	<58 UJ	
		PCB-1260	<28	
		PCB-1262	<120	
		PCB-1268	<42	
		<b>Total PCBs</b>	<2700 U	



**table 6**  
**Analytical Laboratory Results for Soil Confirmation Samples**  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Field Test Kit PCB 1242 Result (ppm)
SB-43-3	3/20/2014	PCB-1016	<30	<b>1899</b>
		PCB-1221	<92	
		PCB-1232	<30	
		PCB-1242	<54	
		PCB-1248	<1100 UJ	
		PCB-1254	<32 UJ	
		PCB-1260	<16	
		PCB-1262	<68	
		PCB-1268	<23	
		<b>Total PCBs</b>	<1100 U	
SB-43-3-FD	3/20/2014	PCB-1016	<62	<b>1899</b>
		PCB-1221	<190	
		PCB-1232	<63	
		PCB-1242	<110	
		PCB-1248	<2800 UJ	
		PCB-1254	<68 UJ	
		PCB-1260	<32	
		PCB-1262	<140	
		PCB-1268	<48	
		<b>Total PCBs</b>	<2800 U	
SB-44-4.5	3/20/2014	PCB-1016	<1.1	<b>57.7</b>
		PCB-1221	<3.3	
		PCB-1232	<1.1	
		PCB-1242	<1.9	
		PCB-1248	<27 UJ	
		PCB-1254	<1.2 UJ	
		PCB-1260	<0.56	
		PCB-1262	<2.5	
		PCB-1268	<0.84	
		<b>Total PCBs</b>	<27 U	
SB-45-4.5	3/19/2014	PCB-1016	<1.1	<b>48.5</b>
		PCB-1221	<3.3	
		PCB-1232	<1.1	
		PCB-1242	<1.9	
		PCB-1248	<43 UJ	
		PCB-1254	<1.2 UJ	
		PCB-1260	<0.56	
		PCB-1262	<2.5	
		PCB-1268	<0.84	
		<b>Total PCBs</b>	<43 U	

**table 6**  
**Analytical Laboratory Results for Soil Confirmation Samples**  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Field Test Kit PCB 1242 Result (ppm)
SB-47-2	3/20/2014	PCB-1016	<120	437
		PCB-1221	<360	
		PCB-1232	<120	
		PCB-1242	<210	
		PCB-1248	7400 NJ	
		PCB-1254	<130 UJ	
		PCB-1260	<60	
		PCB-1262	<260	
		PCB-1268	<90	
		<b>Total PCBs</b>	<b>7400</b>	
SB-47-9	3/20/2014	PCB-1016	<0.056	3.64
		PCB-1221	<0.17	
		PCB-1232	<0.057	
		PCB-1242	<0.1	
		PCB-1248	<2.2 UJ	
		PCB-1254	<0.061 UJ	
		PCB-1260	<0.029	
		PCB-1262	<0.13	
		PCB-1268	<0.044	
		<b>Total PCBs</b>	<2.2 U	
SB-50-5	3/20/2014	PCB-1016	<5.3	524
		PCB-1221	<16	
		PCB-1232	<5.3	
		PCB-1242	<9.5	
		PCB-1248	<250 UJ	
		PCB-1254	<5.7 UJ	
		PCB-1260	<2.8	
		PCB-1262	<12	
		PCB-1268	<4.1	
		<b>Total PCBs</b>	<250 U	

table 6  
Analytical Laboratory Results for Soil Confirmation Samples  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)	Field Test Kit PCB 1242 Result (ppm)
SB-52-5	3/20/2014	PCB-1016	<0.056	<b>12.4</b>
		PCB-1221	<0.17	
		PCB-1232	<0.056	
		PCB-1242	<0.1	
		PCB-1248	<2.1 UJ	
		PCB-1254	<0.06 UJ	
		PCB-1260	<0.029	
		PCB-1262	<0.13	
		PCB-1268	<0.043	
		<b>Total PCBs</b>	<2.1 U	

Notes:

**bolded** values are detections; shaded entries indicate that concentrations either exceed 25 ppm in the upper 1 foot of soil or exceed 100 ppm below 1 foot. Yellow denotes a potential exceedance, as the detection limit exceeded the action level, whereas gray denotes a detected exceedance.

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

ppm = parts per million

< = analyte was not detected above the specified method detection limit

Validation Flags: NJ - Tentatively Identified, U - Nondetect, UJ - Estimated Nondetect

table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-03-0	3/17/2014	PCB-1016	<0.11
		PCB-1221	<0.33
		PCB-1232	<0.11
		PCB-1242	<0.19
		PCB-1248	<b>3.1</b> NJ
		PCB-1254	<0.12 UJ
		PCB-1260	<0.055
		PCB-1262	<0.24
		PCB-1268	<0.083
		<b>Total PCBs</b>	<b>3.1</b>
SB-05-0	3/17/2014	PCB-1016	<0.1
		PCB-1221	<0.31
		PCB-1232	<0.1
		PCB-1242	<0.18
		PCB-1248	<0.11 UJ
		PCB-1254	<b>4.3</b> NJ
		PCB-1260	<0.053
		PCB-1262	<0.23
		PCB-1268	<0.079
		<b>Total PCBs</b>	<b>4.3</b>
SB-06-0	3/17/2014	PCB-1016	<0.048
		PCB-1221	<0.15
		PCB-1232	<0.049
		PCB-1242	<0.087
		PCB-1248	<b>1.3</b>
		PCB-1254	<0.053
		PCB-1260	<0.025
		PCB-1262	<0.11
		PCB-1268	<0.038
		<b>Total PCBs</b>	<b>1.3</b>
SB-11-0	3/17/2014	PCB-1016	<0.0048
		PCB-1221	<0.015
		PCB-1232	<0.0048
		PCB-1242	<0.0086
		PCB-1248	<b>0.18</b> NJ
		PCB-1254	<0.0052 UJ
		PCB-1260	<0.0025
		PCB-1262	<0.011
		PCB-1268	<0.0037
		<b>Total PCBs</b>	<b>0.18</b>



table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-12-0	3/17/2014	PCB-1016	<0.0053
		PCB-1221	<0.016
		PCB-1232	<0.0053
		PCB-1242	<0.0095
		PCB-1248	<b>0.28 NJ</b>
		PCB-1254	<0.0057 UJ
		PCB-1260	<0.0028
		PCB-1262	<0.012
		PCB-1268	<0.0041
		<b>Total PCBs</b>	<b>0.28</b>
SB-13-0	3/17/2014	PCB-1016	<0.053
		PCB-1221	<0.16
		PCB-1232	<0.053
		PCB-1242	<0.095
		PCB-1248	<b>2.3 NJ</b>
		PCB-1254	<0.057 UJ
		PCB-1260	<0.027
		PCB-1262	<0.12
		PCB-1268	<0.041
		<b>Total PCBs</b>	<b>2.3</b>
SB-14-0	3/17/2014	PCB-1016	<0.48
		PCB-1221	<1.5
		PCB-1232	<0.49
		PCB-1242	<0.87
		PCB-1248	<b>7.2 NJ</b>
		PCB-1254	<0.52 UJ
		PCB-1260	<0.25
		PCB-1262	<1.1
		PCB-1268	<0.37
		<b>Total PCBs</b>	<b>7.2</b>
SB-15-0	3/17/2014	PCB-1016	<0.0053
		PCB-1221	<0.016
		PCB-1232	<0.0053
		PCB-1242	<0.0095
		PCB-1248	<b>0.14 NJ</b>
		PCB-1254	<0.0057 UJ
		PCB-1260	<0.0028
		PCB-1262	<0.012
		PCB-1268	<0.0041
		<b>Total PCBs</b>	<b>0.14</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-16-0	3/17/2014	PCB-1016	<0.0054
		PCB-1221	<0.017
		PCB-1232	<0.0055
		PCB-1242	<0.0097
		PCB-1248	<b>0.067</b> NJ
		PCB-1254	<0.0059 UJ
		PCB-1260	<0.0028
		PCB-1262	<0.012
		PCB-1268	<0.0042
		<b>Total PCBs</b>	<b>0.067</b>
SB-17-0	3/18/2014	PCB-1016	<0.0049
		PCB-1221	<0.015
		PCB-1232	<0.0049
		PCB-1242	<0.0087
		PCB-1248	<0.0054 UJ
		PCB-1254	<b>0.25</b> NJ
		PCB-1260	<0.0025
		PCB-1262	<0.011
		PCB-1268	<0.0038
		<b>Total PCBs</b>	<b>0.25</b>
SB-18-0	3/18/2014	PCB-1016	<0.02
		PCB-1221	<0.061
		PCB-1232	<0.02
		PCB-1242	<0.036
		PCB-1248	<b>0.66</b> NJ
		PCB-1254	<0.022 UJ
		PCB-1260	<0.01
		PCB-1262	<0.045
		PCB-1268	<0.015
		<b>Total PCBs</b>	<b>0.66</b>
SB-20-0	3/18/2014	PCB-1016	<0.1
		PCB-1221	<0.31
		PCB-1232	<0.1
		PCB-1242	<0.18
		PCB-1248	<0.11 UJ
		PCB-1254	<b>2.3</b> NJ
		PCB-1260	<0.052
		PCB-1262	<0.23
		PCB-1268	<0.078
		<b>Total PCBs</b>	<b>2.3</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-21-0	3/17/2014	PCB-1016	<0.0053
		PCB-1221	<0.016
		PCB-1232	<0.0053
		PCB-1242	<0.0094
		PCB-1248	<b>0.2 NJ</b>
		PCB-1254	<0.0057 UJ
		PCB-1260	<0.0027
		PCB-1262	<0.012
		PCB-1268	<0.0041
		<b>Total PCBs</b>	<b>0.2</b>
SB-22-0	3/18/2014	PCB-1016	<0.0052
		PCB-1221	<0.016
		PCB-1232	<0.0052
		PCB-1242	<0.0093
		PCB-1248	<b>0.13 NJ</b>
		PCB-1254	<0.0056 UJ
		PCB-1260	<0.0027
		PCB-1262	<0.012
		PCB-1268	<0.004
		<b>Total PCBs</b>	<b>0.13</b>
SB-23-0	3/19/2014	PCB-1016	<0.0054
		PCB-1221	<0.016
		PCB-1232	<0.0054
		PCB-1242	<0.0096
		PCB-1248	<b>0.3 NJ</b>
		PCB-1254	<0.0058 UJ
		PCB-1260	<0.0028
		PCB-1262	<0.012
		PCB-1268	<0.0042
		<b>Total PCBs</b>	<b>0.3</b>
SB-24-0	3/18/2014	PCB-1016	<0.53
		PCB-1221	<1.6
		PCB-1232	<0.53
		PCB-1242	<0.94
		PCB-1248	<b>19 NJ</b>
		PCB-1254	<0.57 UJ
		PCB-1260	<0.27
		PCB-1262	<1.2
		PCB-1268	<0.41
		<b>Total PCBs</b>	<b>19</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-25-0	3/19/2014	PCB-1016	<0.0052 UJ
		PCB-1221	<0.016 UJ
		PCB-1232	<0.0052 UJ
		PCB-1242	<0.0093 UJ
		PCB-1248	<b>0.24 NJ</b>
		PCB-1254	<0.0056 UJ
		PCB-1260	<0.0027 UJ
		PCB-1262	<0.012 UJ
		PCB-1268	<0.004 UJ
		<b>Total PCBs</b>	<b>0.24</b>
SB-26-0	3/18/2014	PCB-1016	<5
		PCB-1221	<15
		PCB-1232	<5
		PCB-1242	<8.9
		PCB-1248	<b>130 NJ</b>
		PCB-1254	<5.4 UJ
		PCB-1260	<2.6
		PCB-1262	<11
		PCB-1268	<3.9
		<b>Total PCBs</b>	<b>130</b>
SB-27-0	3/18/2014	PCB-1016	<0.52
		PCB-1221	<1.6
		PCB-1232	<0.52
		PCB-1242	<0.93
		PCB-1248	<b>13 NJ</b>
		PCB-1254	<0.56 UJ
		PCB-1260	<0.27
		PCB-1262	<1.2
		PCB-1268	<0.4
		<b>Total PCBs</b>	<b>13</b>
SB-28-0	3/18/2014	PCB-1016	<0.005
		PCB-1221	<0.015
		PCB-1232	<0.0051
		PCB-1242	<0.009
		PCB-1248	<b>0.26 NJ</b>
		PCB-1254	<0.0055 UJ
		PCB-1260	<0.0026
		PCB-1262	<0.011
		PCB-1268	<0.0039
		<b>Total PCBs</b>	<b>0.26</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-29-0	3/19/2014	PCB-1016	<0.026
		PCB-1221	<0.079
		PCB-1232	<0.026
		PCB-1242	<0.046
		PCB-1248	<b>0.28</b> NJ
		PCB-1254	<0.028 UJ
		PCB-1260	<0.013
		PCB-1262	<0.059
		PCB-1268	<0.02
		<b>Total PCBs</b>	<b>0.28</b>
SB-30-0	3/19/2014	PCB-1016	<0.0052 UJ
		PCB-1221	<0.016 UJ
		PCB-1232	<0.0052 UJ
		PCB-1242	<0.0093 UJ
		PCB-1248	<b>0.12</b> NJ
		PCB-1254	<0.0057 UJ
		PCB-1260	<0.0027 UJ
		PCB-1262	<0.012 UJ
		PCB-1268	<0.004 UJ
		<b>Total PCBs</b>	<b>0.12</b>
SB-31-0	3/18/2014	PCB-1016	<0.051
		PCB-1221	<0.16
		PCB-1232	<0.051
		PCB-1242	<0.091
		PCB-1248	<b>1.3</b> NJ
		PCB-1254	<0.055 UJ
		PCB-1260	<0.027
		PCB-1262	<0.12
		PCB-1268	<0.04
		<b>Total PCBs</b>	<b>1.3</b>
SB-32-0	3/18/2014	PCB-1016	<0.026
		PCB-1221	<0.079
		PCB-1232	<0.026
		PCB-1242	<0.046
		PCB-1248	<b>0.79</b> NJ
		PCB-1254	<0.028 UJ
		PCB-1260	<0.013
		PCB-1262	<0.059
		PCB-1268	<0.02
		<b>Total PCBs</b>	<b>0.79</b>



table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-33-0	3/18/2014	PCB-1016	<0.026
		PCB-1221	<0.081
		PCB-1232	<0.026
		PCB-1242	<0.047
		PCB-1248	<b>0.7 NJ</b>
		PCB-1254	<0.029 UJ
		PCB-1260	<0.014
		PCB-1262	<0.06
		PCB-1268	<0.02
		<b>Total PCBs</b>	<b>0.7</b>
SB-34-0	3/19/2014	PCB-1016	<0.11
		PCB-1221	<0.32
		PCB-1232	<0.11
		PCB-1242	<0.19
		PCB-1248	<b>4.1 NJ</b>
		PCB-1254	<0.11 UJ
		PCB-1260	<0.055
		PCB-1262	<0.24
		PCB-1268	<0.082
		<b>Total PCBs</b>	<b>4.1</b>
SB-35-0	3/19/2014	PCB-1016	<0.027
		PCB-1221	<0.084
		PCB-1232	<0.028
		PCB-1242	<0.049
		PCB-1248	<b>1 NJ</b>
		PCB-1254	<0.03 UJ
		PCB-1260	<0.014
		PCB-1262	<0.062
		PCB-1268	<0.021
		<b>Total PCBs</b>	<b>1</b>
SB-40-0	3/18/2014	PCB-1016	<0.1
		PCB-1221	<0.32
		PCB-1232	<0.1
		PCB-1242	<0.19
		PCB-1248	<0.11 UJ
		PCB-1254	<b>3.6 NJ</b>
		PCB-1260	<0.054
		PCB-1262	<0.24
		PCB-1268	<0.081
		<b>Total PCBs</b>	<b>3.6</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-41-0	3/19/2014	PCB-1016	<0.026
		PCB-1221	<0.078
		PCB-1232	<0.026
		PCB-1242	<0.046
		PCB-1248	<0.028 UJ
		PCB-1254	<b>0.52</b> NJ
		PCB-1260	<0.013
		PCB-1262	<0.058
		PCB-1268	<0.02
		<b>Total PCBs</b>	<b>0.52</b>
SB-42-0	3/20/2014	PCB-1016	<0.053
		PCB-1221	<0.16
		PCB-1232	<0.054
		PCB-1242	<0.095
		PCB-1248	<b>1.8</b> NJ
		PCB-1254	<0.058 UJ
		PCB-1260	<0.028
		PCB-1262	<0.12
		PCB-1268	<0.041
		<b>Total PCBs</b>	<b>1.8</b>
SB-43-0	3/20/2014	PCB-1016	<5
		PCB-1221	<15
		PCB-1232	<5
		PCB-1242	<8.9
		PCB-1248	<b>160</b> NJ
		PCB-1254	<5.4 UJ
		PCB-1260	<2.6
		PCB-1262	<11
		PCB-1268	<3.8
		<b>Total PCBs</b>	<b>160</b>
SB-44-0	3/20/2014	PCB-1016	<0.052
		PCB-1221	<0.16
		PCB-1232	<0.052
		PCB-1242	<0.092
		PCB-1248	<b>2.3</b> NJ
		PCB-1254	<0.056 UJ
		PCB-1260	<0.027
		PCB-1262	<0.12
		PCB-1268	<0.04
		<b>Total PCBs</b>	<b>2.3</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
Stage I Investigation, Moline Street PCB Site

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-45-0	3/19/2014	PCB-1016	<52
		PCB-1221	<160
		PCB-1232	<53
		PCB-1242	<94
		PCB-1248	1900 NJ
		PCB-1254	<57 UJ
		PCB-1260	<27
		PCB-1262	<120
		PCB-1268	<41
		<b>Total PCBs</b>	<b>1900</b>
SB-46-0	3/19/2014	PCB-1016	<2.6
		PCB-1221	<8.1
		PCB-1232	<2.7
		PCB-1242	<4.7
		PCB-1248	77 NJ
		PCB-1254	<2.9 UJ
		PCB-1260	<1.4
		PCB-1262	<6
		PCB-1268	<2.1
		<b>Total PCBs</b>	<b>77</b>
SB-47-0	3/20/2014	PCB-1016	<2.7
		PCB-1221	<8.2
		PCB-1232	<2.7
		PCB-1242	<4.8
		PCB-1248	110
		PCB-1254	<2.9
		PCB-1260	<1.4
		PCB-1262	<6.1
		PCB-1268	<2.1
		<b>Total PCBs</b>	<b>110</b>
SB-48-0	3/20/2014	PCB-1016	<0.0052
		PCB-1221	<0.016
		PCB-1232	<0.0052
		PCB-1242	<0.0093
		PCB-1248	0.15 NJ
		PCB-1254	<0.0056 UJ
		PCB-1260	<0.0027
		PCB-1262	<0.012
		PCB-1268	<0.004
		<b>Total PCBs</b>	<b>0.15</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-49-0	3/20/2014	PCB-1016	<0.11
		PCB-1221	<0.32
		PCB-1232	<0.11
		PCB-1242	<0.19
		PCB-1248	3.5 NJ
		PCB-1254	<0.11 UJ
		PCB-1260	<0.055
		PCB-1262	<0.24
		PCB-1268	<0.082
		<b>Total PCBs</b>	<b>3.5</b>
SB-50-0	3/20/2014	PCB-1016	<100
		PCB-1221	<310
		PCB-1232	<100
		PCB-1242	<180
		PCB-1248	3900 NJ
		PCB-1254	<110 UJ
		PCB-1260	<53
		PCB-1262	<230
		PCB-1268	<79
		<b>Total PCBs</b>	<b>3900</b>
SB-51-0	3/20/2014	PCB-1016	<0.55
		PCB-1221	<1.7
		PCB-1232	<0.55
		PCB-1242	<0.98
		PCB-1248	12 NJ
		PCB-1254	<0.59 UJ
		PCB-1260	<0.29
		PCB-1262	<1.2
		PCB-1268	<0.42
		<b>Total PCBs</b>	<b>12</b>

table 7  
Analytical Laboratory Results for Concrete Samples  
*Stage I Investigation, Moline Street PCB Site*

Sample Location	Collection Date	Analyte	TestAmerica Analytical Results (mg/kg or ppm)
SB-52-0	3/20/2014	PCB-1016	<2.7
		PCB-1221	<8.2
		PCB-1232	<2.7
		PCB-1242	<4.8
		PCB-1248	<b>110 NJ</b>
		PCB-1254	<2.9 UJ
		PCB-1260	<1.4
		PCB-1262	<6.1
		PCB-1268	<2.1
		<b>Total PCBs</b>	<b>110</b>

Notes:

**bolded** values are detections; shaded entries indicate that concentrations that exceed 25 ppm. Yellow denotes a potential exceedance, as the detection limit exceeded the action level, whereas gray denotes a detected exceedance.

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

ppm = parts per million

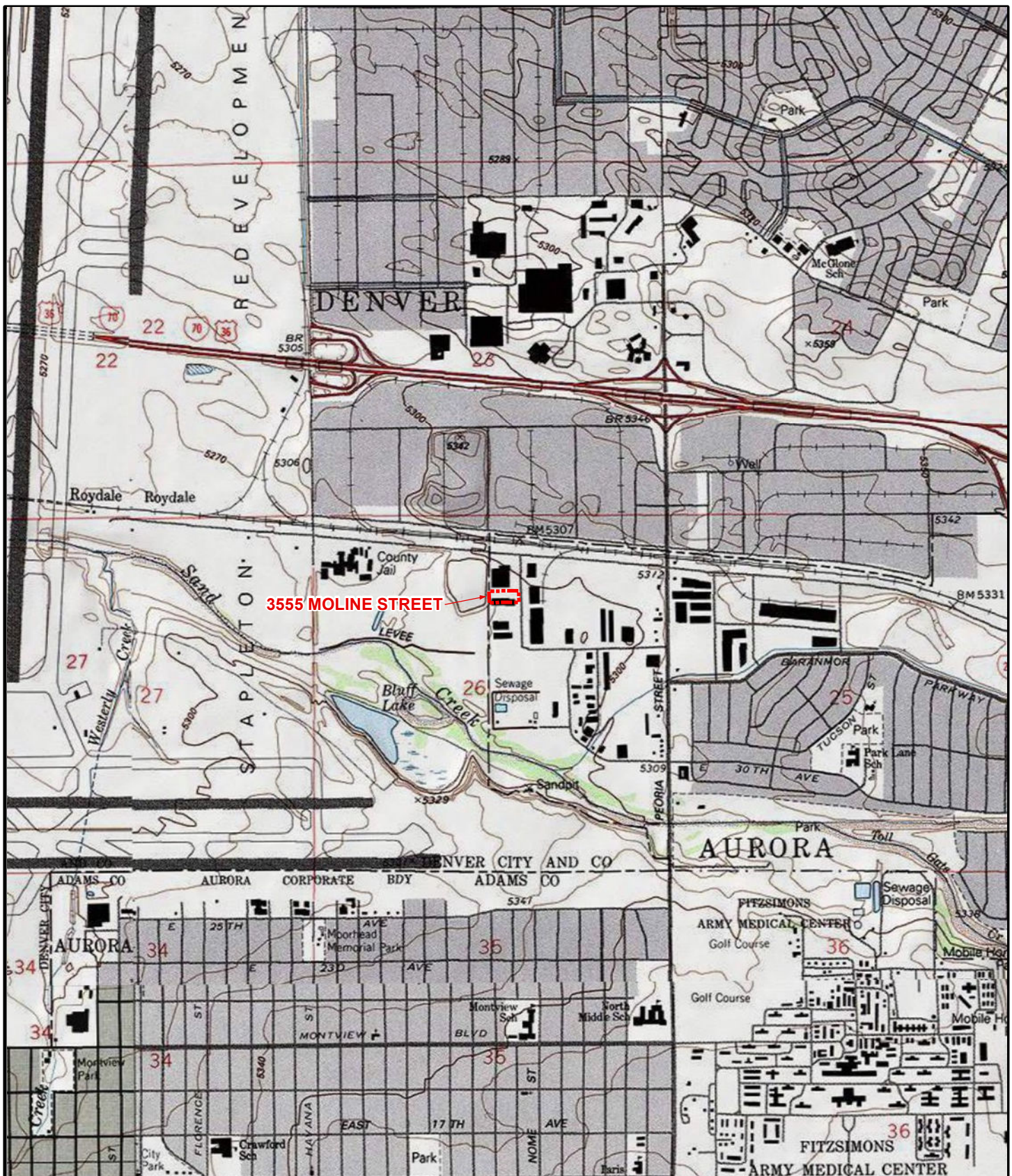
< = analyte was not detected above the specified method detection limit

Validation Flags: NJ - Tentatively Identified, U - Nondetect, UJ - Estimated Nondetect



**STAGE I SUMMARY TECHNICAL MEMORANDUM**  
*Moline Street PCB Site*


**FIGURES**



#### EXPLANATION

 Property Boundary

Map Projection:  
State Plane Feet, Colorado Central Zone, NAD83.  
Basemap Source:  
National Geographic Society, i-cubed (2013)

0 2,000  
 Feet  
1 inch = 2,000 feet



**URS**

#### Figure 1 SITE LOCATION

MOLINE STREET PCB SITE  
AURORA, COLORADO

PROJECT NO.  
41569671

DRAWING NO.  
Fig1\_Site\_Location.mxd

DATE  
2/26/14





EXPLANATION

- Property Boundary
- Former Press
- Press Pit
- Unidentified Feature
- Surveyed Feature
- Fence

Map Projection:  
State Plane Feet, Colorado Central Zone, NAD83.  
Aerial Photo Basemap Source:  
Copyright 2013 Esri, DeLorme, NAVTEQ, TomTom

100 0 100 Feet

1 inch = 100 feet



Figure 2 SITE VICINITY

MOLINE STREET PCB SITE  
AURORA, COLORADO

PROJECT NO. 41569671	DRAWING NO. Fig2_Site_Vicinity.mxd	DATE 4/28/14
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